

CLAIMS

What is claimed is:

1. A brake caliper comprising:
a one piece body, said body having a first wall and an opposing second wall, a pair of bridge sides connect said first and second walls;
said first wall including at least two bores each bore for receiving a piston assembly;
an opening is formed between said first wall, second wall and pair of bridge sides, said opening enabling access into said body;
at least one aperture formed in said second wall, said aperture is continuous with said opening for enabling tools access into said body through said apertures and said opening for machining an inner surface of said body.
2. The caliper according to Claim 1 wherein said bridge sides define a centroid which are substantially aligned with centers of said at least two bores enabling tension deflection of said bridge sides.
3. The caliper according to Claim 1 wherein said bridge sides have a desired thickness between 8 mm to 14 mm.
4. The caliper according to Claim 1, wherein said second wall has a pair of apertures forming in said wall both continuous with said opening.

5. The caliper according to Claim 4, wherein a wall section separates said pair of apertures, said wall extending a desired distance to enable receiving of a paid pin.

6. The caliper according to Claim 4, wherein said apertures are U or V-shaped.

7. A caliper assembly comprising:

a one piece body, said body having a first wall and an opposing second wall, a pair of bridge sides connect said first and second walls;

said first wall including at least two bores each for receiving a piston assembly;

an opening formed between said first wall, second wall and pair of bridge sides, said opening enabling access into said body, at least one aperture in said second wall, said aperture continuous with said opening for enabling access into said body;

a first and second brake pad, said first brake pad abutting said first wall and the second brake pad abutting said second wall;

at least two piston assemblies each positioned in one of said at least two bores;

and

a pair of apertures on said first wall enabling coupling with a knuckle.

8. The caliper assembly according to Claim 7 wherein said bridge sides have a thickness between 8 mm to 14 mm.

9. The caliper assembly according to Claim 7 wherein said at least one aperture originates at said bridge sides and extends on said second wall away from said bridge sides.

10. The caliper according to Claim 7, wherein said second wall has a pair of apertures forming in said wall both continuous with said opening.

11. The caliper according to Claim 10, wherein a wall section separates said pair of apertures, said wall extending a desired distance to enable receiving of a paid pin.

12. The caliper assembly according to Claim 10, wherein said bridge sides define centroids substantially aligned with centers of said at least two bores enabling tension deflection of said bridge sides.

13. The caliper assembly according to Claim 12, wherein said bridge sides have a thickness between 8 mm to 14 mm.

14. The caliper assembly according to Claim 7 wherein said first brake pad abuts said piston assemblies so that said pad abutment is above a pad friction center.

15. The caliper assembly according to Claim 10, wherein said at least one aperture has a U or V-shape.

16. A method of manufacturing a caliper comprising:

forming a caliper body having a first wall with at least two bores, a second wall opposing said first wall with a single aperture, a pair of bridge sides connecting said first and second walls defining an opening continuous with said at least one aperture;

dropping a tool into said opening and said apertures finishing first abutment;

traversing said tool along said wall;

finishing an inner surface of said caliper body;

removing said tool from said caliper body finishing second abutment.

17. The method according to Claim 16, further comprising finishing an inner surface of said bridge sides.

18. The method according to Claim 17, further comprising dropping a tool into said at least one aperture and said opening and axially moving said tool for finishing said one of said bores and repeating said step for finishing the other of said bores.

19. The method according to Claim 16, wherein said second wall has a pair of apertures and further comprising dropping said tool in each aperture for finishing said surface.

20. A method of manufacturing a caliper assembly comprising:

forming a caliper body having a first wall with at least two bores, a second wall opposing said first wall with at least one aperture, a pair of bridge sides connecting said first and second walls defining an opening continuous with said at least one aperture;

dropping a tool into said opening and said at least one aperture in said caliper body; and

finishing an inner surface of said caliper body;

removing said tool from said caliper body;

positioning a piston assembly in each of said at least two bores in said first wall;

securing a first and second brake pad in said caliper body, said first brake pad adjacent said first wall and said second brake pad adjacent said second wall.

21. The caliper assembly according to Claim 20, wherein said at least one aperture has a U or V-shape.